

Applicants: Jansen et al.
Application No.: 10/717,058
Filing Date: November 19, 2006
Docket No.: 102-548 CIP/CON (P-4136P1C1)
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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An injection device, comprising:

a substantially cylindrical barrel for containing a medicament;

a needle cannula provided at an end of said barrel;

a holder defining an enclosure, said barrel extending at least partially within said enclosure and being axially movable with respect to said holder;

a shield positioned about at least a portion of said barrel and operably connected to said holder, said shield being axially movable with respect to said holder between a retracted position, wherein said needle cannula is exposed, to an extended position, wherein said needle cannula is enclosed by said shield;

a spring at least partially compressed within said holder, ~~operably biased between said holder and said shield and~~ for urging said shield towards said extended position;

a first stop member on said shield;

a second stop member on said holder and engageable with said first stop member when said shield is in said retracted position, the force of said at least partially compressed spring being insufficient to cause disengagement of said first and second stop members; and

a third stop member on said shield distally spaced from said first stop member;

wherein said shield is initially in said retracted position, and wherein axial movement of said barrel relative to said holder causes movement of said shield from said retracted position to said extended position.

2. (Original) An injection device as defined in Claim 1 wherein said shield is telescopically received within said holder and said first stop member extending radially outwardly from said shield.
3. (Original) An injection device as defined in Claim 2 wherein said second stop member extends radially inwardly from an internal surface of said holder.
4. (Original) An injection device as defined in Claim 3, wherein said second stop member is adjacent a distal end of said holder.
5. (Original) An injection device as defined in Claim 4, wherein said first stop member is adjacent a distal end of said shield.
6. (Original) An injection device as defined in Claim 5, wherein said third stop member is larger in diameter than said first stop member.
7. (Original) An injection device as defined in Claim 1, including an end fitting slidably mounted to said holder and engaging a proximate end of said barrel.

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8. (Original) An injection device as defined in Claim 1, wherein said shield is positioned at least partially within said holder, said holder comprising an elongate, generally tubular body including a detent engageable with said third stop member, said third stop member being positionable between said detent and said second stop member when said shield is in the extended position, and said detent preventing said shield from being retracted from said extended position and exposing said needle cannula.

9. (Original) An injection device as defined in Claim 8, wherein said detent is radially deflectable with respect to said holder.

10. (Original) An injection device as defined in Claim 1, wherein said barrel includes a flange, said flange being slidably retained by said holder.

11. (Original) An injection device as defined in Claim 1, wherein said holder comprises an elongate, generally tubular body having proximal and distal end portions, said proximal end portion including a radially outwardly extending flange, said distal end portion including said second stop member.

12. (Currently Amended) A medical device comprising:

a holder comprising an elongate body, an elongate enclosure defined by said body, and said holder having proximal and distal open ends;

a syringe including a barrel for containing a medicament, a needle provided at an end of said barrel, a stopper slidably positioned within said barrel, and a plunger rod engaging said stopper, said syringe being coupled to said holder and positioned within said enclosure such that said needle cannula extends beyond said distal open end, said syringe being axially movable within said enclosure;

a shield coupled to said holder and axially movable relative to said holder between a retracted position, wherein said needle cannula is at least partially exposed, and an extended position wherein said shield encloses said needle cannula;

a spring at least partially compressed ~~and biased between said holder and said shield~~ for urging said shield towards the extended position; and

a stop member mounted to said holder adjacent to said distal open end, said stop member being releasably engageable with said shield when said shield is in the retracted position,

wherein said shield is initially in said retracted position, and wherein axial movement of said syringe relative to said holder causes axial movement of said shield from said retracted to said extended position.

13. (Original) A device as described in Claim 12, wherein said holder and said shield are generally cylindrical, said shield being at least partially positioned within said holder enclosure.

14. (Original) A device as defined in Claim 13, wherein said shield includes a radially outwardly extending stop member adjacent its distal end, and said stop member of said holder extending radially inwardly, said holder further including a radially inwardly extending detent,

said detent located adjacent said distal open end of said holder spaced proximally of said holder stop member, said radially outwardly extending stop member of said shield being retained by said radially inwardly extending stop member of said holder under the force of said spring, but movable past said radially inwardly extending stop member under a force exceeding the force of said spring, said shield including a further radially outwardly extending stop member capable of moving past said detent under the force of said spring and being retained by said detent, said detent including a surface engageable with said further radially outwardly extending stop member for preventing said shield from moving towards said proximal open end of said holder when in said extended position.

15. (Original) A device as defined in Claim 14, wherein said further radially outwardly extending stop member is larger in diameter than said radially outwardly extending distal stop member.

16.-20. (Canceled)

21. (Currently Amended) A shield system for an injection device, comprising:

a holder defining an enclosure within which a cylindrical barrel may partially extend, the cylindrical barrel being sized and shaped for containing a medicament and being axially movable with respect to said holder;

a shield operably connected to said holder and being axially movable with respect to said holder between a retracted position, wherein said shield is at least partially within said holder, and an extended position, wherein said shield is at least partially outside of said holder;

a spring partially compressed within said holder ~~and operably positioned between said holder and said shield~~ so as to bias said shield towards said extended position;

a first stop member on said shield;

a second stop member on said holder and engageable with said first stop member when said shield is in said retracted position, the force of said spring being insufficient to cause disengagement of said first and second stop members; and

a third stop member on said shield spaced from said first stop member;

wherein said shield is initially in said retracted position, and wherein axial movement of the barrel relative to said holder causes movement of said shield from said retracted position to said extended position.

22. (Previously Presented) A shield system as defined in Claim 21, further comprising:

a substantially cylindrical barrel having a needle cannula provided at an end thereof;

wherein said needle cannula is exposed and extends beyond an end of said holder when said shield is in said retracted position, and said needle cannula is enclosed by said shield when said shield is in said extended position.

23. (Original) A shield system as defined in Claim 21, wherein said shield is telescopically received within said holder and said first stop member extending radially outwardly from said shield.
24. (Original) A shield system as defined in Claim 21, wherein said second stop member extends radially inwardly from an internal surface of said holder.
25. (Original) A shield system as defined in Claim 24, wherein said second stop member is adjacent a distal end of said holder.
26. (Original) A shield system as defined in Claim 25, wherein said first stop member is adjacent a distal end of said shield.
27. (Original) A shield system as defined in Claim 21, including an end fitting slidably mounted to said holder and engaging a proximate end of said barrel.
28. (Previously Presented) A shield system as defined in Claim 21, wherein said shield is positioned at least partially within said holder, said holder comprising an elongate, generally tubular body including a detent engageable with said third stop member, said third stop member being positionable between said detent and said second stop member when said shield is in the extended position, and said detent preventing said shield from being retracted from said extended position.

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29. (Original) A shield system as defined in Claim 28, wherein said detent is radially deflectable with respect to said holder.

30. (Previously Presented) A shield system as defined in Claim 21, wherein said barrel includes a flange, said flange being slidably retained by said holder.

31. (Currently Amended) A shield system for a medical device comprising:

a holder comprising an elongate body, an elongate enclosure defined by said body and within which a syringe having a barrel for containing a medicament may partially extend, the syringe being axially movable with respect to said holder, and said holder having proximal and distal open ends;

a shield coupled to said holder and axially movable relative to said holder between a retracted position and an extended position;

a spring at least partially compressed ~~and biased between said holder and said shield for~~ urging said shield towards the extended position; and

a stop member mounted to said holder adjacent to said distal open end, said stop member being releasably engageable with said shield when said shield is in the retracted position,

wherein said shield is initially in said retracted position, and wherein axial movement of the syringe relative to said holder causes movement of said shield from said retracted to said extended position.

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32. (Previously Presented) A shield system as defined in Claim 31, further comprising a syringe including a barrel, a needle cannula provided on said barrel, a stopper slidably positioned within said barrel, and a plunger rod engaging said stopper, said syringe being coupled to said holder and positioned within said enclosure such that said needle cannula extends beyond said distal open end when said shield is in said retracted position and said needle cannula is enclosed when said shield is in said extended position.

33. (Original) A shield system as described in Claim 31, wherein said holder and said shield are generally cylindrical, said shield being at least partially positioned within said holder enclosure.

34. (Original) A shield system as defined in Claim 33, wherein said shield includes a radially outwardly extending stop member adjacent its distal end, and said stop member of said holder extending radially inwardly, said holder further including a radially inwardly extending detent, said detent located adjacent said distal open end of said holder spaced proximally of said holder stop member, said radially outwardly extending stop member of said shield being retained by said radially inwardly extending stop member of said holder under the force of said spring, but movable past said radially inwardly extending stop member under a force exceeding the force of said spring, said shield including a further radially outwardly extending stop member capable of moving past said detent under the force of said spring and being retained by said detent, said detent including a surface engageable with said further radially outwardly extending stop member for preventing said shield from moving towards said proximal open end of said holder when in said extended position.

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35. (Original) A shield system as defined in Claim 34, wherein said further radially outwardly extending stop member is larger in diameter than said radially outwardly extending distal stop member.